Remarks

Claims 1--20 were originally presented in the present application, from which claim 16 has been canceled without prejudice or disclaimer of the subject matter therein and to which claims 21 --30 have been added. It is respectfully submitted that the pending claims define allowable subject matter.

Initially, the examiner is thanked for indicating claims 5, 14 and 16 to be allowable, although the undersigned does not agree with the characterization of the patentable subject matter in the statement of reasons for allowance. Notwithstanding, claims 5 and 14 have been rewritten in independent formed, while the primary feature of claim 16 has been added to independent claim 11.

The objection to claims 6, 7 and 19 is believed to be overcome by the above amendments.

Claims 1, 2, 4, 6-10 and 18-20 have been rejected under 35 USC 102(b) as being anticipated by Pfaff (USP 6,016,254). Claim 3 has been rejected under 35 USC 103(a) as being unpatentable over Pfaff. Claims 11-13, 15 and 17 have been rejected under 35 USC 103 (a) as being unpatentable over Pfaff in view of Applicant's admitted prior art. Applicant respectfully traverses these rejections for reasons set forth hereafter.

Claim 1 defines a socket connector having a socket base with a slot formed therein and a contact. The contact has a base beam and a retention portion. The base beam extends along and is held against the bottom surface of the socket base. The socket base receives the retention portion which projects upward from the bottom surface into the slot such that an angle between the base beam and the retention portion is changed from an initial angle.

It is submitted that Pfaff fails to teacher or suggest the claimed configuration of a contact and socket base. In Pfaff, the contact 18 includes a free portion 24 and an implanted portion 26. The implanted portion 26 extends through an aperture formed in the base member 14. A solder tail 28 is provided on the end of the implanted portion 26. Pfaff's contact does not include a base beam extending along and held against the bottom surface of the socket base, nor a retention portion forming an initial angle with the base beam before assembly and projecting upward from

the bottom surface into a slot formed in the socket base such that the angle between the base beam and retention portion is changed from its initial angle once assembled. Instead, Pfaff's contact 18 includes an implanted portion 26 that is retained entirely the aperture in the base 14 by tabs 56F. The solder tail 28 does not constitute or render obvious the claimed base beam arrangement.

Turning to claim 18, a socket connector is recited having a base carrying a contact and a socket cover. The contact includes a contact arm extending beyond a top surface of the base and a base beam extending along a bottom surface of the base. The socket cover has a rigid top surface configured to engage a transport tool. The top surface contains peripheral heat transfer aperture's configured to permit heat transfer to the contact.

Pfaff's contact 18 does not include a base beam that extends along a bottom surface of the base. Nor does Pfaff teacher or suggest the claimed socket cover. In Pfaff, the package 12 does not include a rigid top surface configured to engage a transport tool. Instead, Pfaff expressly teaches that it is desirable for the entire top face of the package 12 to be uncovered and exposed leaving as much as 95% or more of the top face for interconnection with a heat dissipating device such as the heat sink (see column 3, lines 61-65). Pfaff's package 12, with 95% exposed, would not be able to engage a transport tool. Moreover, package 12 of Pfaff does not include any peripheral heat transfer apertures.

Turning to the dependent claims, claims 3 and 13 further define the socket connectors of claims 1 and 11, respectively, to include a socket cover configured to engage a transport tool. The socket cover has apertures to permit heat transfer to the contact to facilitate soldering of the contact to a circuit board. In Pfaff, the package 12 is provided with a large opening in the top face to receive a heat sink to dissipate heat from Pfaff's package. Nowhere does Pfaff describe a cover with apertures configured to facilitate heat transfer for soldering of the contact to a circuit board.

Claim 8 defines the base beam to include a flexible arm extending downward from the base beam and spaced apart from the bottom surface of the socket base. The flexible arm is

configured to receive a solder ball. In Pfaff, only the solder tail extends below the base 14 and the solder tail directly abuts against the bottom of the base 14.

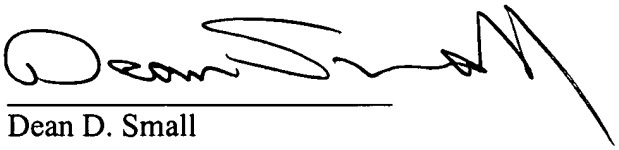
Turning to the new claims, claim 25 defines an electrical contact having a base beam extending along a contact seating plane. The base beam is configured to be maintained coplanar with, and flush against, a bottom surface of a socket connector. The contact further includes a retention portion formed with the base beam. The retention portion is configured to be snugly held by the socket connector. The retention portion is configured to be inserted through the bottom surface. A contact arm is formed with the base. The contact arm is configured to project from a top surface of the socket connector.

As explained above, Pfaff fails to teacher or suggest any such contact arrangement. The contact 18 of Pfaff includes a free portion 24 and an implanted portion 26. The implanted portion 26 is retained within an aperture in the base 14. Only the solder tail 28 extends below the base 14.

Claim 26 further defines the base beam to be configured to be positioned below a channel formed through the socket connector with the contact arm extending through the channel. Claim 27 defines the contact arm as being oriented to project at an acute angle with respect to the top surface of the socket connector. Claim 28 defines the base beam and retention portion to be formed at an acute angle with respect to one another such that the retention portion exerts a force upon the base beam to retained the base beam against the bottom surface of the socket connector. Claim 29 further recites a solder ball carrier beam joined at an intermediate point to the base beam. The carrier beam extends downward from the base beam away from the bottom surface of the socket connector. Claim 30 defines the retention portion to be held in a slot in the socket connector. As explained above, Pfaff lacks each of the above structures.

In view of the foregoing, it is respectfully submitted that the pending claims define allowable subject matter. Should anything remain in order to place the present application in condition for allowance, the examiner is kindly invited to contact the undersigned at the telephone number listed below.

Respectfully Submitted,



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